Katherine Vazquez

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[Sood, Sheetal](javascript:%20void%200%20); [Jitendra, A.](javascript:%20void%200%20) (2007). A Comparative Analysis of Number Sense Instruction in

Reform-Based and Traditional Mathematics Textbooks. *The Journal of Special Education,* v. 41 p. 145-57.

This study compared number sense instruction in three first-grade traditional mathematics textbooks and one reform-based textbook (Everyday Mathematics [EM]). Textbooks were evaluated with regard to their adherence to principles of effective instruction (e.g., big ideas, conspicuous instruction). The results indicated that traditional textbooks included more opportunities for number relationship tasks than did EM; in contrast, EM emphasized more real-world connections than did traditional textbooks.

[Vega, Tina](javascript:%20void%200%20); [Travis, B](javascript:%20void%200%20). (2011). An Investigation of the Effectiveness of Reform Mathematics

Curricula Analyzed by Ethnicity, Socio-economic Status, and Limited English Proficiency. [*Mathematics and Computer Education, v.45*](javascript:%20void%200%20)p. 10-16.

The writers analyze the best way to teach mathematics to students, with special reference to the state of Texas. Two approaches to teaching mathematics in the secondary classroom, commonly referred to as “traditional” and “reform,” are discussed, as is the impact of the curriculum on student achievement analyzed by ethnicity, socioeconomic status, and limited English proficiency.

[McConney, Marc](javascript:%20void%200%20); Perry, M. (2011). A Change in Questioning Tactics: Prompting Student

Autonomy. *Investigations in Mathematics Learning,* v. 3 p. 26-45.

In this study, we examined the types and the frequencies of questions and explanations exchanged between four teachers and their students in fourth-grade mathematics classes, across two years. Specifically, we observed these classes for one week in two separate, consecutive years; in the first year, they all employed a traditional curriculum, while in year two, they all used a reform-oriented curriculum, Math Trailblazers. We examined the discourse practices of these teachers across the two years and how these discourse practices granted the intellectual space for the children to recognize and utilize more autonomy in classroom discussions. We not only offer a quantitative analysis of the changes in classroom discourse practices across the two years, we have also included selected examples of verbal exchanges between teachers and students to showcase notable qualitative differences we observed from year one to year two.

[Moyer, John C.](javascript:%20void%200%20); Cai, J.;Wang, N; [Nie, I](javascript:%20void%200%20). (2011). Impact of Curriculum Reform: Evidence of

Change in Classroom Practice in the United States. *International Journal of Educational Research,* v. 50 p. 87-99.

The purpose of the study reported in this article is to examine the impact of curriculum on instruction. Over a three-year period, we observed 579 algebra-related lessons in grades 6-8. Approximately half the lessons were taught in schools that had adopted a Standards-based mathematics curriculum called the Connected Mathematics Program (CMP), and the remainder of the lessons were taught in schools that used more traditional curricula (non-CMP). We found many significant differences between the CMP and non-CMP lessons. The CMP lessons, emphasized the conceptual aspects of instruction to a greater extent than the non-CMP lessons and the non-CMP lessons emphasized the procedural aspects of instruction to a greater extent than the CMP lessons. About twice as many CMP lessons as non-CMP lessons were structured to use group work as a method of instruction. During lessons, non-CMP students worked individually on homework about three times as often as CMP students. When it came to text usage, CMP teachers were more likely than non-CMP teachers to work problems from the text and to follow lessons as laid out in the text. However, non-CMP students and teachers were more likely than CMP students and teachers to review examples or find formulas in the text. Surprisingly, only small proportions of the CMP lessons utilized calculators (16%) or manipulatives (11%).

[Fuson, Karen.](javascript:%20void%200%20); [Carroll, W.](javascript:%20void%200%20); [Drueck, J.](javascript:%20void%200%20) (2000). Achievement Results for Second and Third

Graders using the Standards-based curriculum Everyday Mathematics. *Journal for Research in Mathematics Education*, v. 31, p 277-95.

Students using *Everyday Mathematics* (EM), developed to incorporate ideas from the NCTM *Standards*, were at normative U.S. levels on multidigit addition and subtraction symbolic computation on traditional, reform-based, and EM-specific test items. Heterogeneous EM 2nd graders scored higher than middle- to upper-middle-class U.S. traditional students on 2 number sense items, matched them on others, and were equivalent to a middle-class Japanese group. On a computation test, the EM 2nd graders outperformed the U.S. traditional students on 3 items involving 3-digit numbers and were outperformed on the 6 most difficult test items by the Japanese children. EM 3rd graders outscored traditional U.S. students on place value and numeration, reasoning, geometry, data, and number-story items. Reprinted by permission of the publisher.